



Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 24/11/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 22/11/2020

	Number	Percent
Total number of confirmed cases	70,704	
National cumulative incidence of confirmed cases per 100,000 population	1,484.8	
Total number of cases hospitalised	5,069	7.17
Total number of cases admitted to ICU	604	0.85
Total number of deaths among confirmed cases	1,768	2.5
Case fatality ratio (CFR, %)	2.5	
National cumulative incidence of confirmed deaths per 100,000 population	37.13	
Total number of outbreaks/clusters	9,096	
Total number of cases associated with clusters	38,375	54.28
Total number of imported cases	656	0.93
Number of cases in healthcare workers	11,675	16.51
Males	33,242	47.02
Females	37,431	52.94
M:F ratio	0.89	
Median age (years)	39	
Mean age (years)	41	
Age range (years)	0 - 108	

Note: Data were extracted from Computerised Infectious Disease Reporting (CIDR) system at 09:14 on 24/11/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

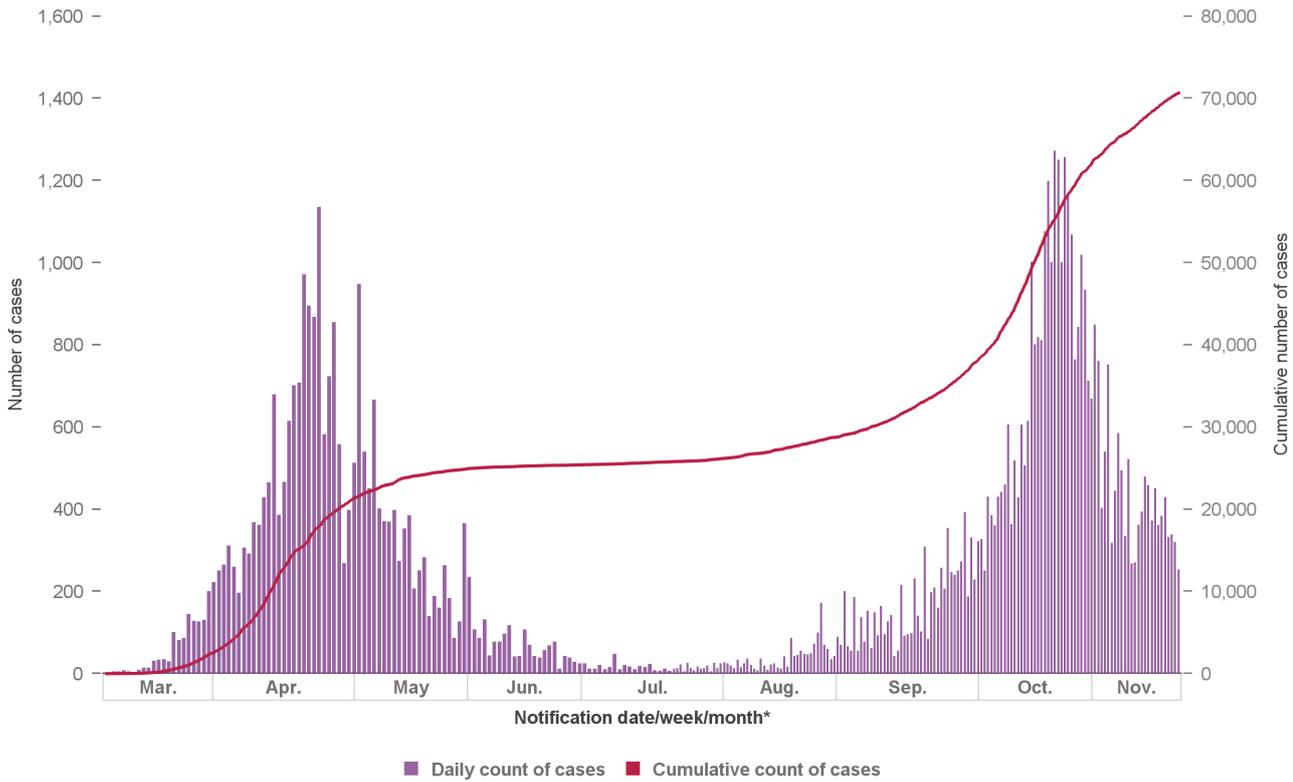


Figure 1a: Number* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date* to midnight 22/11/2020

*Between 05/04/2020 – 19/04/2020, the daily number of COVID-19 events notified in Ireland is inflated due to batch reporting of cases with specimen dates between from 19/03/2020 – 01/04/2020 in addition to real-time reporting of cases with contemporaneous specimen dates

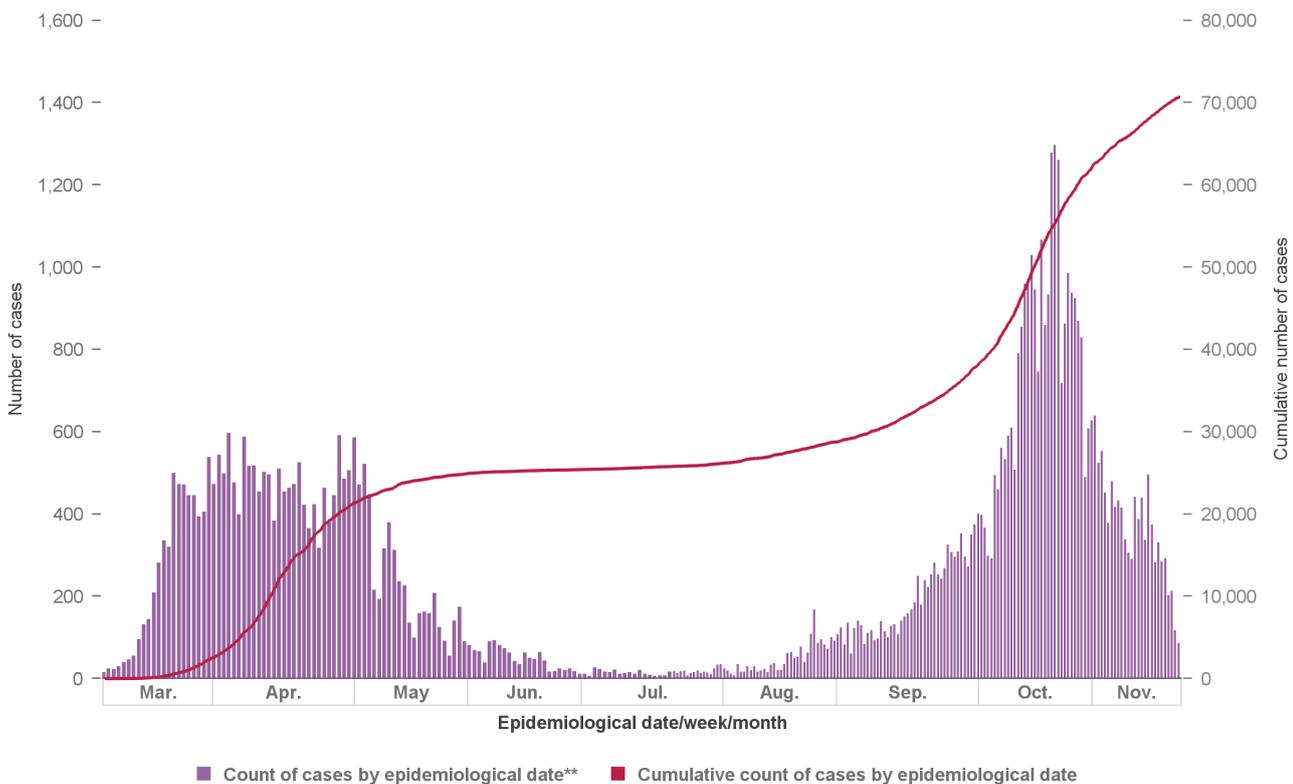


Figure 1b: Number and cumulative number of confirmed COVID-19 cases notified in Ireland by epidemiological date to midnight 22/11/2020**

**Epidemiological date is derived from epidemiological date, which is the earliest of onset date, date of diagnosis, laboratory specimen collection date, laboratory received date, laboratory reported date, event creation/notification date.

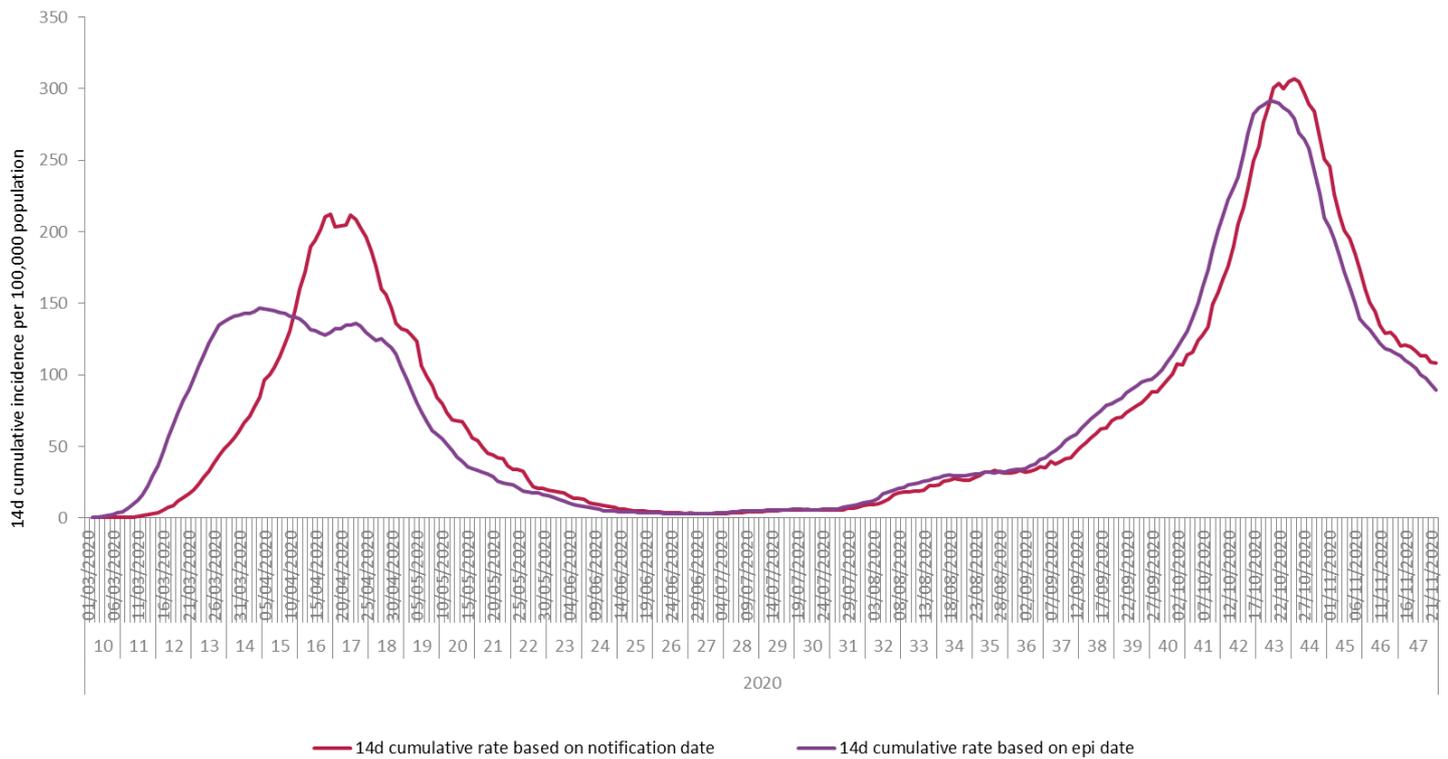


Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification* and epidemiological date to midnight 22/11/2020**

* Between 05/04/2020 – 19/04/2020, the daily number of COVID-19 events notified in Ireland is inflated due to batch reporting of cases with specimen dates between from 19/03/2020 – 01/04/2020 in addition to real-time reporting of cases with contemporaneous specimen dates

**Epidemiological date is derived from epidemiological date, which is the earliest of onset date, date of diagnosis, laboratory specimen collection date, laboratory received date, laboratory reported date, event creation/notification date.

Table 1: Characteristics of confirmed COVID-19 cases notified in Ireland up to midnight on 22/11/2020

Characteristic		Number of cases	Percent
Total number of confirmed cases		70,704	100
Sex	Male:Female ratio	0.89	
	Male	33,242	47.02
	Female	37,431	52.94
	Unknown	31	0.04
Age	Median age (years)	39	
	Mean age (years)	41	
	Age range (years)	0 - 108	
	0-4 yrs	1,800	2.55
	5-14 yrs	4,384	6.2
	15-24 yrs	12,359	17.48
	25-34 yrs	11,915	16.85
	35-44 yrs	11,088	15.68
	45-54 yrs	10,717	15.16
	55-64 yrs	7,607	10.76
	65-74 yrs	4,082	5.77
	75-84 yrs	3,574	5.05
	85+ yrs	3,145	4.45
	Unknown	33	0.05

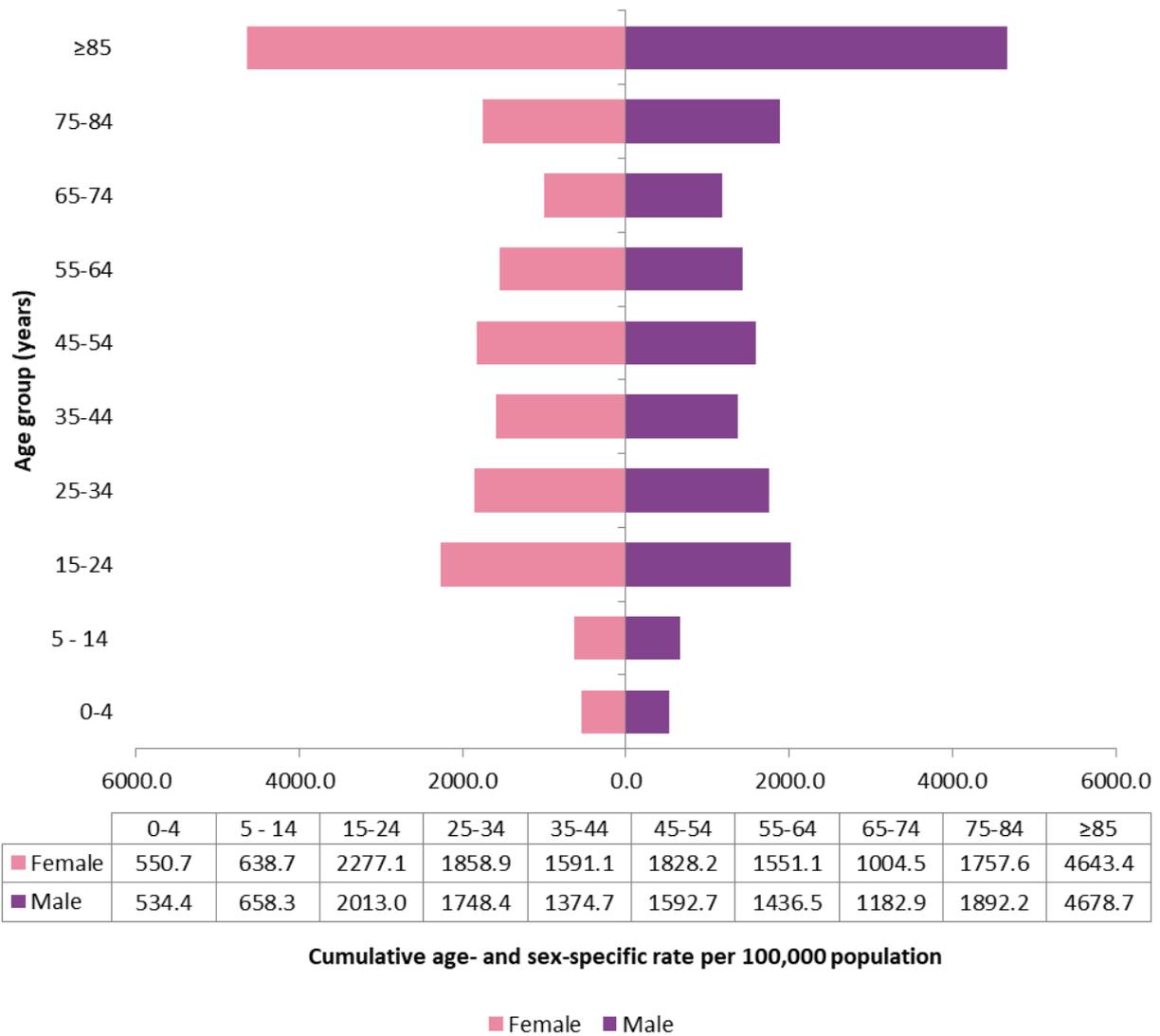


Figure 3: Cumulative age- and sex-specific incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 21/11/2020 (excluding 32 cases for whom age is unknown, 30 cases for whom sex is unknown and 1 case for whom both are unknown)

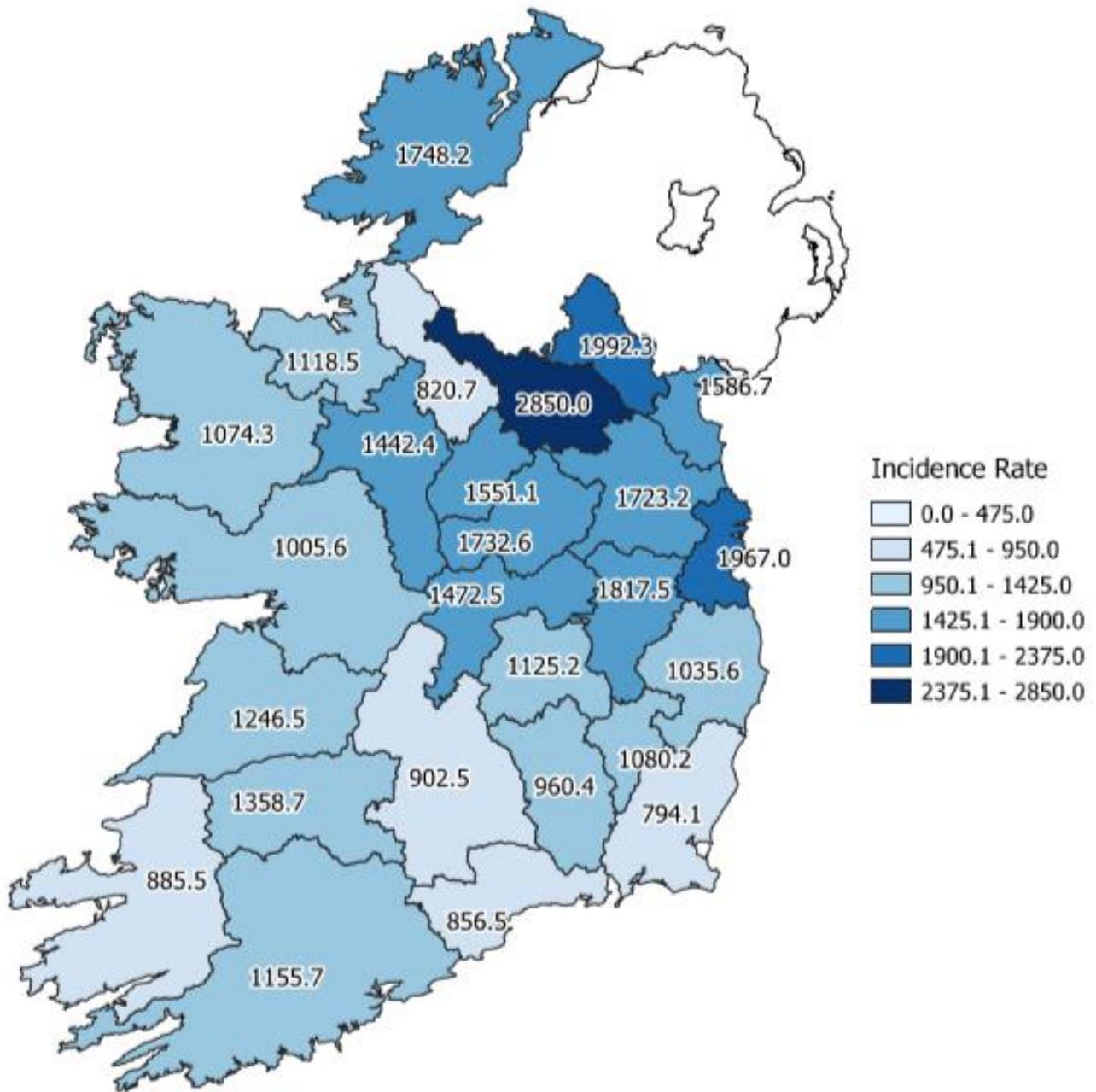


Figure 4: Cumulative incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 22/11/2020

Please do not directly compare county shades to previous maps. The numbers of cases by county are increasing and as such the categories listed will broaden which may result in changes to the map shading.

Table 2: Number of confirmed COVID-19 cases by county notified to midnight 22/11/2020

County Name	Number of cases	Percent
Carlow	615	0.87
Cavan	2,171	3.07
Clare	1,481	2.09
Cork	6,274	8.87
Donegal	2,783	3.94
Dublin	26,502	37.48
Galway	2,595	3.67
Kerry	1,308	1.85
Kildare	4,044	5.72
Kilkenny	953	1.35
Laois	953	1.35
Leitrim	263	0.37
Limerick	2,648	3.75
Longford	634	0.9
Louth	2,045	2.89
Mayo	1,402	1.98
Meath	3,361	4.75
Monaghan	1,223	1.73
Offaly	1,148	1.62
Roscommon	931	1.32
Sligo	733	1.04
Tipperary	1,440	2.04
Waterford	995	1.41
Westmeath	1,538	2.18
Wexford	1,189	1.68
Wicklow	1,475	2.09
Total	70,704	100

Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 22/11/2020

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	21,805	30.84%
Local transmission, incl. possible local transmission	47,030	66.52%
Travel abroad, incl. possible travel abroad	979	1.38%
Unknown	890	1.26%
Total	70,704	100.00%

*See technical note 3 for definition of WHO transmission classification

Cases which were notified more than 2 weeks ago and have not yet been reported as imported or linked to an outbreak are classified as possible community transmission.

Table 4: Cumulative number of confirmed cases of COVID-19 notified in Ireland by age group and hospital, ICU as of midnight 22/11/2020

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	1800	55	1.09	1	0.17
5-14 yrs	4384	50	0.99	4	0.66
15-24 yrs	12359	164	3.24	8	1.32
25-34 yrs	11915	314	6.19	17	2.81
35-44 yrs	11088	407	8.03	49	8.11
45-54 yrs	10717	641	12.65	109	18.05
55-64 yrs	7607	732	14.44	159	26.32
65-74 yrs	4082	905	17.85	175	28.97
75-84 yrs	3574	1,118	22.06	74	12.25
85+ yrs	3145	681	13.43	8	1.32
Unknown	33	2	0.04	0	0
Total	70,704	5,069	100	604	100

Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation, ICU and vital status admission 22/11/2020

	0-4 yrs	5-14 yrs	15-24 yrs	25-34 yrs	35-44 yrs	45-54 yrs	55-64 yrs	65-74 yrs	75-84 yrs	85+ yrs	Unknown
Number of cases (n)	1,800	4,384	12,359	11,915	11,088	10,717	7,607	4,082	3,574	3,145	33
Cases hospitalised (n)	55	50	164	314	407	641	732	905	1,118	681	2
Cases hospitalised (%)	3.06	1.14	1.33	2.64	3.67	5.98	9.62	22.17	31.28	21.65	6.06
Cases admitted to ICU (n)	1	4	8	17	49	109	159	175	74	8	0
Cases admitted to ICU (%)	0.06	0.09	0.06	0.14	0.44	1.02	2.09	4.29	2.07	0.25	0
Deaths (n)	0	0	1	6	12	30	82	272	606	759	0
Case fatality ratio (%)	0	0	0.01	0.05	0.11	0.28	1.08	6.66	16.96	24.13	0

Outbreaks of COVID-19

Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 22/11/2020

Outbreak Location	E	HPSC	M	MW	NE	NW	S	SE	W	Total
Private house	4,059		160	184	440	384	541	593	534	6,895
Other*	233	2	68	157	69	118	227	58	131	1,063
Nursing home	166		16	20	50	10	22	20	44	348
Workplace	99		19	21	46	35	24	27	23	294
Residential institution	145		16	17	34	10	30	16	10	278
Hospital	99		7	9	22	10	16	9	7	179
Comm. Hosp/Long-stay unit	7		4	2		5	7	5	5	35
Unknown						4				4
Total	4,808	2	290	410	661	576	867	728	754	9,096

*Other outbreak location includes community, extended family, hotel, public house, retail outlet, travel related and all other locations.

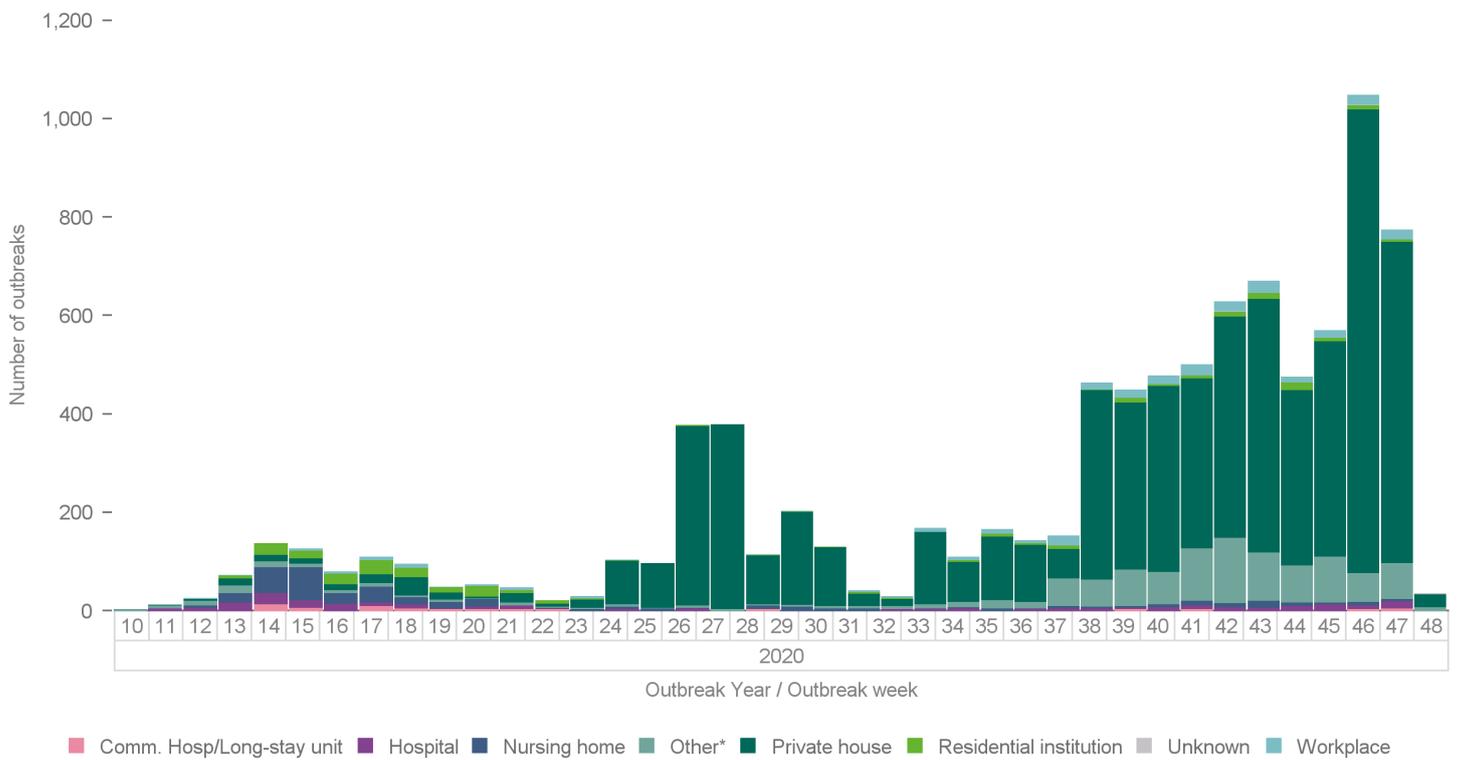


Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 22/11/2020

*Other outbreak location includes community, extended family, hotel, public house, retail outlet, travel related and all other locations.

Note: 8,303 COVID-19 outbreaks were reported on CIDR between week 24 and week 48 2020 (9th June to 2nd t November). Of these, 6,605 were family outbreaks. Based on the earliest date associated with each outbreak, some of these family outbreaks occurred earlier and were reported between weeks 24 and 47 as a result of data validation: 1 occurred in February, 636 in March, 475 in April, 94 in May, 126 in June, 128 in July, 533 in August, 1,511 in September, 2,448 in October and 653 to date in November.

Deaths among COVID-19 cases

Table 7: Summary of deaths in all COVID-19 cases notified in Ireland up to midnight 22/11/2020

	Number	Percent
Total number of deaths	2,027	
Confirmed	1,768	87.22
Probable	95	4.69
Possible	164	8.09
Total number of cases hospitalised	904	44.6
Cases admitted to ICU	133	6.56
Cases not admitted to ICU	771	38.04
Total number of imported cases	6	0.3
Number of cases in healthcare workers	8	0.39
Number with underlying clinical conditions	1,881	92.8
Total number of male cases	1,024	50.52
M:F ratio	1.02	
Median age (years)	83	
Mean age (years)	81	
Age range (years)	17 - 105	

Table 8: Number of deaths in all COVID-19 cases by sex and age group notified in Ireland up to midnight 22/11/2020

Age group (years)	Female	Male	Total	Percent
15-24 yrs	<5	<5	1	0.05
25-34 yrs	<5	<5	6	0.3
35-44 yrs	6	7	13	0.64
45-54 yrs	12	20	32	1.58
55-64 yrs	30	58	88	4.34
65-74 yrs	108	192	300	14.8
75-84 yrs	314	374	688	33.94
85+ yrs	528	369	897	44.25
Unknown	<5	<5	2	0.1
Total	1,003	1,024	2,027	100
Percent	49.48	50.52		

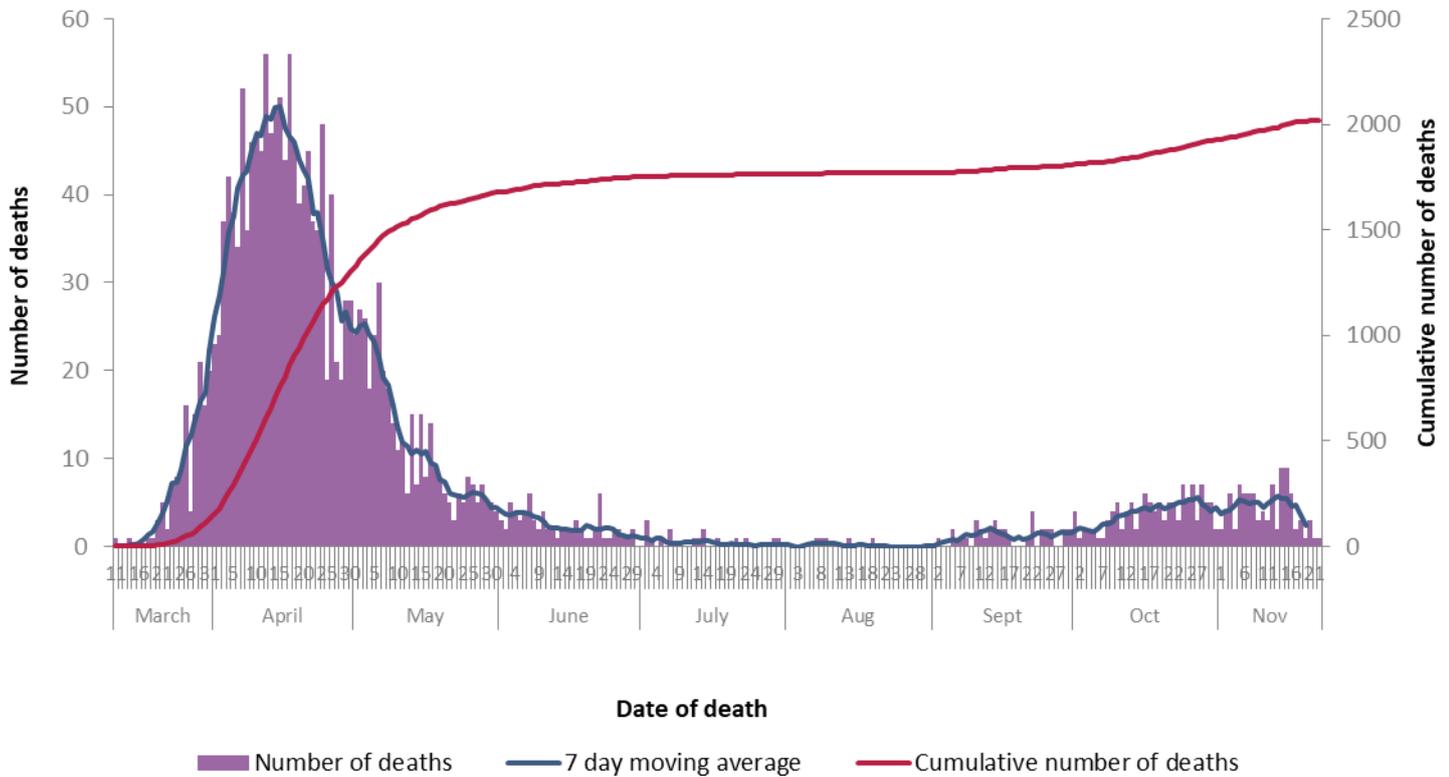


Figure 6a: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 22/11/2020

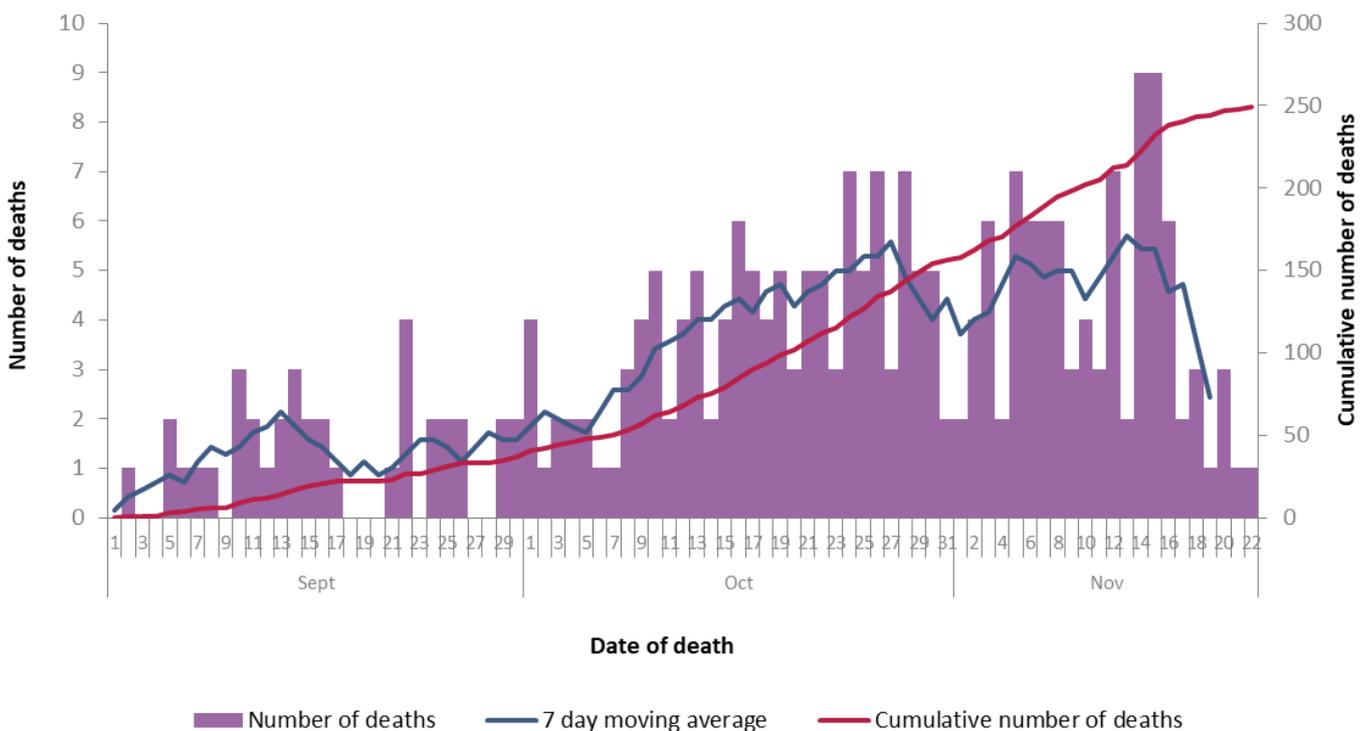


Figure 6b: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total, 01/09/2020 to midnight 22/11/2020

* Date of death is not yet available for eight cases

Please note: a lag in time between reporting of deaths and data extraction is expected and as such most recent dates will not yet reflect all deaths on that date

Acknowledgements

Sincere thanks are extended to all those who are participating in the collection of data and reporting of data used in these reports. This includes the HSE COVID-19 Contact Management Programme (CMP), staff in ICU units, notifying clinicians, laboratory staff, public health doctors, nurses, surveillance scientists, microbiologists and administrative staff.

Report prepared by COVID-19 Epidemiology Team, HPSC

Technical Notes

1. Data Source

Data are based on statutory notifications and were extracted from Computerised Infectious Disease Reporting (CIDR) system at 09:14 on 11/24/20. Data are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

2. Epidemiological date

Epidemiological date is derived from the earliest of onset date, date of diagnosis, laboratory specimen collection date, laboratory received date, laboratory reported date, event creation/notification date.

3. Population data

Population data were taken from Census 2016. Data were aggregated into the following age groups for the analysis: 0-4 years, 5-14 years, 15-24 years, 25-34 years, 35-44 years, 45-54 years, 55-64 years, 65-74 years, 75-84 years and ≥ 85 years.

3. Transmission classification

Transmission classification is based on country of infection as well as enhanced exposure data (international travel; close contact of a case) recorded in CIDR. Transmission is classified as 'unknown' due to incomplete data on CIDR.

WHO definition of transmission classification is specified below:

- Community transmission is evidenced by the inability to relate confirmed cases through chains of transmission for a large number of cases, or by increasing positive tests through routine screening of sentinel samples.
- Local transmission indicates locations where the source of infection is within the reporting location.
- Imported cases only indicates locations where all cases have been acquired outside the location of reporting.

4. HSE areas

The counties covered by each HSE area are as follows:

- HSE East (E): Dublin, Kildare & Wicklow;
- HSE Midlands (M): Laois, Longford, Offaly & Westmeath;
- HSE Midwest (MW): Clare, Limerick & N. Tipperary;
- HSE Northeast (NE): Cavan, Louth, Meath & Monaghan;
- HSE Northwest (NW): Donegal, Leitrim & Sligo;
- HSE South (S): Kerry & Cork;
- HSE Southeast (SE): Carlow, Kilkenny, S. Tipperary, Waterford & Wexford;
- HSE West (W): Galway, Mayo & Roscommon.

5. Outbreak location

Where an outbreak location is reported as a residential facility (RF) this includes nursing homes, community hospitals, long-stay units and residential institutions including mental health facilities, prisons and direct provision centres.

Other outbreak location includes community, extended family, hotel, public house, retail outlet, travel related and all other locations.